



UNITED STATES MARINE CORPS

MARINE CORPS BASE  
QUANTICO, VIRGINIA 22134-5001

MCBO 11262.1  
C 049/bj  
30 Apr 84

MARINE CORPS BASE ORDER 11262.1

From: Commanding General  
To: Distribution List

Subj: INSPECTION AND LOAD TESTING OF MARINE CORPS COMMERCIAL AND  
TACTICAL LOAD LIFTING EQUIPMENT

Ref: (a) MCO 11262.2  
(b) TM 4700-15/1 (NOTAL)

Encl: (1) Inspection and Load Testing Procedures  
(2) Crane Operator's Daily Checklist  
(3) Crane Condition Inspection Record  
(4) Facilities Maintenance Work Request (NAFAC-9)  
(5) Equipment Repair Order (NAVMC 10245)  
(6) Shop Repair Order (NAVMC 11200)  
(7) Certification of Load Test and Condition Inspection

1. Purpose. To establish policy and procedures for load test and condition inspection of marine Corps Commercial and Tactical Load Lifting Equipment.

2. Background

a. Reference (a) establishes the requirements for all units owning or using Marine Corps load lifting equipment to ensure that inspection and annual load testing is conducted.

b. This Order provides the standard procedures to be utilized in the load testing and inspection of Marine Corps owned commercial and tactical load lifting equipment in use by activities aboard the Marine Corps Development and Education Command.

3. Applicability. This Order is applicable to each activity owning or using Marine Corps load lifting equipment. Included is all equipment commonly referred to as cranes (rough terrain 30 ton; RT48MC; Pettibone 15B1WF), wreckers (M816), forklifts (materials handling equipment), retrievers (M578 and M88A1 Tank Recovery Vehicles), "A" frames, chain hoists and winches which are used to lift loads vertically (not included are overhead industrial cranes in permanent facilities). Hydraulic jacks and jackstands do not, require load testing. However, such items must be permanently marked with the rated load capacity.

30 Apr 84

4. Action. Activity heads will accomplish the following:

a. Ensure that inspections and annual load testing are conducted in accordance with reference (a), enclosure (1) of this Order and appropriate Technical Manuals (TMs).

b. Ensure that weight capacities and test data are properly stenciled on the equipment in accordance with reference (a) and that equipment records are properly annotated before placing load lifting equipment into service.

c. Identify load lifting equipment to the Head, Facilities Maintenance Division annually by 31 August in a letter format, to include the following information:

(1) Nomenclature.


(2) Serial/ID Number.

(3) Location.

(4) Date Load Test Due.

(5) Lifting Capacity of Equipment.

d. Ensure that inspections and load testing programs are implemented in accordance with this Order.

  
J. B. AIROLA  
Chief of Staff  
Acting

DISTRIBUTION: A/C/D

30 Apr 84

## INSPECTION AND LOAD TESTING PROCEDURES

1. General Information

a. Inspection. When required in technical directives as a scheduled maintenance check (preventive maintenance (PM)), owning/using activities shall conduct the inspection concurrent with the PM service. When no general inspection is specified as part of PM services or when inspection requirements are not adequately covered, they will be conducted as set forth herein.

b. Receipt of Equipment. Upon receipt of load lifting equipment, the owning/using activity shall determine if the annual load test requirement has been met. When this cannot be verified by equipment records and/or by test data stenciled on the equipment, a load test shall be conducted as part of the equipment acceptance check.

c. Operator Daily Check. Operators of cranes, wreckers and tank recovery vehicles shall perform a daily inspection of their assigned equipment. The crane operator's daily checklist (enclosure (2)) will be produced locally and used for this purpose. The form shall be filed with the Engineer Equipment Operation Record (NAVMC 10523). The wrecker and material handling equipment operator's daily inspection checklist is part of the "trip ticket" (NAVMC 10627) and will be filed in accordance with the instructions contained in reference (b). Operators of tank recovery vehicles shall record daily inspections in the Tracked Vehicle Daily Log (NAVMC 10393) as set forth in the applicable TMs.

d. Annual Condition Inspection and Load Testing. The purpose of the annual condition inspection is to ensure that the overall structural, mechanical and electrical components of equipment have been maintained in a safe and serviceable condition and are functioning properly. A condition inspection shall be performed before, during, and after the load test. A locally produced record, similar to the one shown in enclosure (3), shall be used to record the results of the inspection. The purpose of the load test is to ensure that the equipment is capable of safely lifting and moving the rated load through all operational modes. This test is conducted by Facilities Maintenance Division, Shop 78.

e. Certification. The Certifying Officer, designated in writing, will be an assigned representative of Facilities Maintenance Division and is responsible for ensuring the safety and reliability of weight handling equipment. The Certifying Officer shall designate the authorized test personnel. Certification shall be based on the condition inspection-and load test prescribed in the current edition of MCO 11262.2. Certification of load test and condition inspection shall be signed by the Test Director, Inspection and Test personnel and Certifying Officer.

ENCLOSURE (1)

30 Apr 84

f. Condition Inspection, Load Test and Certification Frequency. Each unit of weight handling equipment shall be **condition-**inspected, load-tested and certified at least once annually.

g. Induction Procedure

(1) Prior to load testing, the following documents are to be delivered to the Facilities Maintenance Division Work Reception Desk:

(a) A properly completed Work Request (NAVFAC-9-11014, enclosure (4)).

(b) An Equipment Repair Order (ERO) (enclosure (5)), completed in accordance with the current edition of MCDECO 4790.2, for all tactical equipment.

(c) A Shop Repair Order (SRO) (enclosure (6)), completed in accordance with the current edition of TM 4700-15/1, for commercial equipment.

(2) After approval, the Inspection and Test personnel will coordinate time and dates with the activity requesting the load test, test, inspect, and submit for review to the Certifying Officer, all documents pertaining to the test and inspection.

(3) It is the responsibility of the owning activity to ensure that the equipment being load tested is in a safe and operational condition. Discrepancies will be corrected prior to load testing. The operator is required to be available during the load test.

h. Commanding Officers and Officers In Charge will ensure that all slings and frames used to lift loads are inspected daily. Before, during and after use all slings, frames, fasteners and attachments will be visually inspected for damage or defects. Worn, damaged or defective slings/frames will be immediately removed from service.

i. Recording Test Results. All test results shall be entered on locally produced certification of load test and condition inspection forms (enclosure (7)) and filed in the equipment record jacket. After completion of each load test and condition inspection, remove the previous certification and replace it with the recent certification. Test results for tracked vehicle retrievers shall be entered on the tracked vehicle preventive maintenance record (NAVMC 10495).

j. Prerequisites to Load Testing

ENCLOSURE (1)

30 Apr 84

(1) A safe test area shall be selected, and all traffic and unauthorized personnel and equipment shall be cleared from the test area.

(2) All rigging used in crane load testing shall have been previously tested to at least 150% of the rated working load.

k. Precautions During Load Testing

(1) Prescribed tests are overload tests, and extreme caution should be observed at all times. Personnel shall watch the outrigger(s) opposite the boom for any indication of the outrigger(s) leaving the ground. This condition indicates that the crane is approaching a tip-over condition, and testing shall be immediately terminated.

(2) Personnel **shall** remain clear of suspended loads and areas where they could be struck in the event of boom failure.

(3) The test load should be raised only to a height sufficient to perform the test.

(4) Items of Marine Corps **equipment** shall not be used as load testing weights.

MCBO 11262.1  
30 Apr 84

# CRANE OPERATOR'S DAILY CHECKLIST

CRANE NO		TYPE/CAP		LOCATION/ASSIGN		SHIFT		HOUR METER		HRS OPERATED		DATE			
						1	2	3	START	STOP					
OPERATORS NAME				OILERS NAME				INSTRUCTION = Check all items indicated. Inspect and indicate as satisfactory - S, unsatisfactory # U, or not applicable = NA							
1 WALK AROUND INSPECTION				2 MACHINERY MOUSE INSPECTION				3 OPERATOR CAB INSPECTION				4 OPERATION INSPECTION			
a	Safety Guards & Plates	S	U	a	Housekeeping	S	U	a	Gauges	S	U	a	Area Safety	S	U
b	Carrier Frame/Rotate Base *			b	Engine/Compressor			b	Warning/Indicator Lights			b	Unusual Noises		
c	General Hardware			c	Leaks Fuel/Lube/Oil/Water			c	Controls/Brakes			c	Control Action		
d	Wire Rope *			d	Lubrication			d	Visibility			d	Brakes/Boom/Load/Rotate		
e	Reeving *			e	Battery			e	Load Rating Charts			e	Crane Stability		
f	Block *			f	Lights			f	Safety Devices			f	No Load Test		
g	Hook *			g	Glass			g	Emergency Stops			g	Fleeting Sheave		
h	Sheaves *			h	Clutch/Brake Linings			h	List/Trim Indicators			h	Limit Switches		
i	Boom/Jib *			i	Electric Motors			i	Boom Angle/Radius Indicator						
j	Gantry/Pendants/Boom Stops*			j	Warning Tags										
k	Walks/Ladders/Handrails			k	Fire Extinguisher(s)										
l	Windlocks/Chocks/Stops														
m	Tires/Wheels/Tracks														
n	Leaks, Fuel/Lub/Oil/Water														
o	Radius Indicator														
p	Outrigger/Locking Device *														
INSTRUCTIONS = Inspect • if applicable items indicated, each shift. Suspend all operations immediately when observing an unsatisfactory condition of any item indicated above with an asterisk (*). In addition, suspend operation when any unsafe condition is observed and immediately notify supervisor. Other conditions not affecting safety shall be noted under "Remarks" and reported to supervisor.										OPERATORS SIGNATURE					
REMARKS										DATE					
										SUPERVISOR SIGNATURE					
CRANE OPERATORS DAILY CHECKLIST										DATE					

ENCLOSURE (2)

30 Apr 84

## CRANE CONDITION INSPECTION RECORD

Crane No.	Type	Location	Operator Names	Operator License Nos.
Purpose of Inspection:			Date Started	Date Completed
Item No.	Item Description			Insp/Init.
1	Bent, cracked, or corroded structural members.			
2	Cracked or corroded welds.			
3	Loose, broken, missing, or deteriorated rivets or bolts.			
4	Inspect all wire rope for wear, broken wires, corrosion, kinks, damaged strands, crushed or flattened sections, condition of sockets, and dead end connections. Check for proper lubrication and evidence of proper inspection of idler sheaves and saddles. See appendixes A and B for detailed inspection requirements and rejection criteria.			
5	Inspect hooks for cracks, sharp edges, and distortion. Verify disassembly, inspection, and NDT, as applicable.			
6	Inspect all brakes and clutches for proper operation. Spot check components for proper adjustment and acceptable wear.			
7	Check all controls for proper condition and operation.			
8	Check all control components for proper condition and operation.			
9	Inspect all limit switches for condition and proper operation.			
10	Ensure each drum has minimum of two complete wraps of wire rope at lowest working level.			
11	Check load indicators for condition and working accuracy.			
12	Inspect all mechanical equipment which is reasonably accessible for wear, cracks, and alignment.			
13	Inspect, where practical, for worn, defective, or misaligned bearings, bushings, shafts, pins, and gears.			
14	Check components for excessive heat, vibration, noise, and oil leaks.			
15	Inspect sheaves for wear, roughness, free-turning, and alignment. Gauge sheave groove, where possible.			
16	Inspect for excessive wear of wheels, tires, rollers, and roller paths or rails.			
17	Inspect for excessive wear of chains and sprockets. Measure chain stretch of load chains.			
18	Verify that correct certified capacity charts or hook load rating data is in view of operator and/or rigging personnel.			
19	Inspect operator's cab for cleanliness and operation of all equipment.			
20	Check machinery house for cleanliness, proper safety guards, warning signs, and storage of tools and equipment.			
21	Check operation of all indicators, warning devices, and lights.			

ENCLOSURE (3)

30 Apr 84

## Crane Condition Inspection Record (Reverse Side)

Item No.	Item Description	B	D	A	Insp/Init.
22	Check for proper type and condition of all fire protection equipment.				
23	Check condition and function of outriggers, pads, boxes, wedges, and cylinder mountings. Check level indicators.				
24	Check center pin nut and steadiment by observing operational behavior during load test.				
25	Check travel, steering, braking, and locking devices for condition and proper operation.				
26	Check radius indicator for accuracy by measuring actual radius in at least two boom positions.				
27	Check pawls, ratchets, and spuds for proper engagement and operation of interlocks.				
28	Inspect tanks, lines, valves, drains, filters, and other components of air systems for leakage and proper operation.				
29	Inspect reservoirs, pumps, motors, valves, lines, cylinders, and other components of hydraulic systems for leakage and proper operation.				
30	Check engines and engine generator sets for proper performance, safety, and system leakage.				
31	Inspect for bent, cracked, corroded, or dented boom members.				
32	Check condition of counterweights, ballast, and securing fasteners.				
33	Check all compartments (voids) for water tightness.				
34	Check accuracy of list and trim indicators against design data or previous test data.				

Remarks:

LEGEND

B--before

D--during

A--after

Inspector Signature/Date	Test Director Signature/Date
--------------------------	------------------------------

ENCLOSURE (3)



MCBO 11262.1

30 Apr 84

## FACILITIES MAINTENANCE WORK REQUEST (NAFAC-9)

WORK REQUEST (MAINTENANCE MANAGEMENT)  
 NAVFAC 9-11014/20 REV. 2-68) S/N 0105-LF-002-7510  
 Supersedes NAVDOCKS 235 1

(PW Department see Instructions  
 in NAVFAC MO-321)

Requestor see Instructions on Reverse Side

## PART I-REQUEST (Filled out by Requestor)

1. FROM UNIT REQUESTING		2. REQUEST No.
3. TO MAINTENANCE DIVISION		4. DATE OF REQUEST UNIT REQUEST NO
5. REQUEST FOR C   COST ESTIMATE <input checked="" type="checkbox"/> PERFORMANCE OF WORK		5a. REQUEST WORK START DATE TO START WORK
6. FOR FURTHER INFORMATION CALL		7. SKETCH/PLAN ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO
8. DESCRIPTION OF WORK AND JUSTIFICATION (Including location, type, size, quantity, etc.)		

Load testing, wrecker, truck - M543  
 Serial # of equipment: 2074972

9. FUNDS CHARGEABLE	10. SIGNATURE (Requesting Official) AUTHORIZING SIGNATURE
---------------------	--

PART II-COST ESTIMATE  
 (Filled out by Maintenance Control Division if estimate requested)

11. TO:		12. ESTIMATE No.
13. COST ESTIMATE		14. SKETCH/PLAN ATTACHED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
a. Labor	\$	15. <input type="checkbox"/> APPROVED. PROGRAMMING TO START IN _____  <input type="checkbox"/> APPROVED. BASED ON PRESENT WORKLOAD, THIS JOB CAN BE PROGRAMMED TO START IN _____ IF AUTHORIZED BY 25TH OF _____ AND FUNDS ARE MADE AVAILABLE.  <input type="checkbox"/> DISAPPROVED. (See Reverse Side)
b. Material	\$	
c. Overhead and/or Surcharge	\$	
d. Equipment Rental/Usage	\$	
e. Contingency	\$	16. SIGNATURE
f. TOTAL	\$	
		17. DATE

## PART III-ACTION (Filled out by Requestor)

18. TO:		19. AUTHORIZATION TO PROCEED IS ATTACHED (Check one if other than PW funds are involved) <input type="checkbox"/> NAVCOMPT 140 <input type="checkbox"/> OTHER	20. WORK REQUESTED <input type="checkbox"/> HAS BEEN CANCELLED <input type="checkbox"/> HAS BEEN DEFERRED <input type="checkbox"/> WILL BE PERFORMED BY OTHERS
21. SIGNATURE		22. DATE	

(See Part IV on Reverse Side)

ENCLOSURE (4)

## EQUIPMENT REPAIR ORDER (NAVMC 10245)

[illegible]

EQUIPMENT REPAIR ORDER (ERO) (1140)

ORIGINAL

ENCLOSURE (5)



# CERTIFICATION OF LOAD TEST AND CONDITION INSPECTION

Crane No.	Type	Rated Cap lbs. feet	Boom Length	Location	Test Date																																								
Reason for test			<p align="center"><b>Certification</b></p> <p>This is to certify that inspections and tests have been conducted in accordance with the crane test procedures set forth in MCO 11262.2.</p>																																										
Category Group (1) Cranes																																													
Hoist	Test Load %	Minimum Radius Pounds    Feet		Maximum Radius Pounds    Feet																																									
Main																																													
Aux																																													
Whip																																													
Hook Throat Opening		Before Test		After Test																																									
Main Hook																																													
Aux Hook																																													
Whip Hook																																													
Category Group (2) Cranes																																													
<p align="center"><b>Crane Condition Inspection Record Item Numbers</b></p> <p>Check (✓) Items Inspected</p> <table border="1"> <tr> <td>1</td> <td>6</td> <td>11</td> <td>16</td> <td>21</td> <td>26</td> <td>31</td> <td>36</td> </tr> <tr> <td>2</td> <td>7</td> <td>12</td> <td>17</td> <td>22</td> <td>27</td> <td>32</td> <td>37</td> </tr> <tr> <td>3</td> <td>8</td> <td>13</td> <td>18</td> <td>23</td> <td>28</td> <td>33</td> <td>38</td> </tr> <tr> <td>4</td> <td>9</td> <td>14</td> <td>19</td> <td>24</td> <td>29</td> <td>34</td> <td>39</td> </tr> <tr> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> <td>35</td> <td>40</td> </tr> </table>						1	6	11	16	21	26	31	36	2	7	12	17	22	27	32	37	3	8	13	18	23	28	33	38	4	9	14	19	24	29	34	39	5	10	15	20	25	30	35	40
						1	6	11	16	21	26	31	36																																
						2	7	12	17	22	27	32	37																																
						3	8	13	18	23	28	33	38																																
						4	9	14	19	24	29	34	39																																
5	10	15	20	25	30	35	40																																						
<p>It is further certified that the crane identified above is satisfactory to lift its rated capacity at its rated radii.</p>																																													
<p>Test Director (Signature) _____ Date _____</p>																																													
<p>Inspector (Signature) _____ Date _____</p>																																													
<p>Certifying official (Signature) _____ Date _____</p>																																													
Remarks:																																													

ENCLOSURE (7)

MCO 11262.1  
30 Apr 84